

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
	)	
Shinzo YASUDA et al.	)	Group Art Unit: 1633
	)	
Application No.: 10/594,417	)	Examiner: Scott LONG
	)	
International Filing Date: March 25, 2005	)	
	)	Confirmation No.: 2159
371(c) Date: September 26, 2006	)	
	)	
For: PROCESS FOR PRODUCING 1,3-	)	
PROPANEDIOL AND/OR 3-	)	
HYDROXYPROPIONIC ACID	)	

**Mail Stop Amendment**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**RESPONSE TO RESTRICTION REQUIREMENT**

Applicant now responds to the Office Action (Restriction Requirement) mailed June 17, 2008.

In the Office Action, a restriction requirement was made under 35 USC §§ 121 and 372 among the following groups of claims:

**Group I** - Claim 8, allegedly “drawn to a knockout bacteria of *Lactobacillus reuteri* lacking glycerol dehydrogenase, classified in class 435, subclass 158.”

**Group II** - Claim 9, allegedly “drawn to a knockout bacteria of *Lactobacillus reuteri* comprising the pdu Operon and a gene encoding phosphotransacylase, but not the gene encoding glycerol dehydrogenase, classified in class 435, subclass 158.”

**Group III** - Claims 11, 26-28, and 30-33, allegedly “drawn to a transformant of *Lactobacillus reuteri* comprising introduction of the following genes: glycerol dehydratase, propionaldehyde dehydrogenase, and propanol dehydrogenase, classified in class 435, subclass 158.”

**Group IV** - Claim 12, allegedly “drawn to a method for producing 1,3-propanediol and 3-hydroxypropionic acid using the bacteria of claim 8, classified in class 435, 158 [sic], subclass 158.”

**Group V** - Claim 13, allegedly “drawn to a method for producing 1,3-propanediol and 3-hydroxypropionic acid using the bacteria of claim 9, classified in class 435, 158 [sic], subclass 158.”

**Group VI** - Claims 29 and 34, allegedly “drawn to a method for producing 1,3-propanediol and 3-hydroxypropionic acid using the bacteria of claim 11, classified in class 435, 158 [sic], subclass 158.”

The Examiner urges that “the inventions listed as Groups I-VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical feature.” Action at page 3. Specifically, the Examiner stated that “Groups I, II, and III are directed to *Lactobacillus reuteri* having three distinct structures” and “Groups IV, V, and VI constitute three different methods that require the use of three distinct reagents (i.e., the microorganisms of Groups I-III, respectively), but which produce the same metabolic products.” *Id.* at page 4. The Examiner concluded that “[b]ecause three structurally distinct microorganisms can produce the same products (i.e., 1,3-propanediol and 3-hydroxypropionic acid) from an identical carbon source (i.e., glycerol), there cannot be a special technical feature that unites all of these inventions.” *Id.*

At the outset, Applicants respectfully assert that it would be eminently feasible for the Examiner to search and examine all of the claims together for several reasons. First, each group is classified in the same class (435) and the same subclass (158). Moreover, prior to Applicants’ filing of the Request for Continued Examination on April 16, 2008, all of the then-pending claims of the instant application were examined together. Thus, any further searching and

examining of the instant claims together would not impose any additional burden on the Examiner.

Furthermore, contrary to the Office's assertions, the claimed inventions share a special technical feature. For example, at least the claims of the following groups share a special technical feature: Groups I and IV; Groups II and V; and Groups III and VI. Groups I and IV share the special technical feature of the knockout bacteria of claim 8. Groups II and V share the special technical feature of the knockout bacteria of claim 9. Groups III and VI share the special technical feature of the transformant of claim 11. Thus, the search for Group IV, Group V, or Group VI would necessarily cover the art relevant to Group I, Group II, or Group III, respectively. Accordingly, at a minimum, the claims of Groups I and IV; Groups II and V; and Groups III and VI form a single general inventive concept and satisfy the requirements for Unity of Invention under PCT Rule 13.1. MPEP, Appendix AI (Administrative Instructions under the PCT), Annex B, Part 1, subsection (b); Rule 13.2. Thus, Applicants respectfully request reconsideration and specifically request the combining of:

- Groups I and IV (claims 8 and 12);
- Groups II and V (claims 9 and 13); and
- Groups III and VI (claims 11 and 26-34).

Applicants provisionally elect with traverse the subject matter of Group III, claims 11, 26-28, and 30-33, with traverse. Should the Examiner combine the groups as respectfully requested, Applicants would elect the combined Groups of III and VI, thereby adding claims 29 and 34, for a total selection of claims 11 and 26-34. In either case, the right to pursue non-elected subject matter in one or more divisional applications is expressly reserved.

Please grant any extensions of time required to enter this paper and charge any additional required fees to Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

Dated: July 16, 2008

By: Jean Burke Fordis  
Jean Burke Fordis  
Reg. No. 32,984  
Customer No. 22,852